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Storitve in protokoli za napredna omrežja (SPAN) – Preskušanje integracije omrežja univerzalnega mobilnega telekomunikacijskega sistema (UMTS) z globalnim sistemom mobilnih komunikacij (GSM), faza 2+, ter javnega komutiranega telefonskega omrežja (PSTN) z digitalnim omrežjem z integriranimi storitvami (ISDN) – 1. del: Zgradba preskušalnega niza in namen preskušanja (TSS&TP)

Services and Protocols for Advanced Networks (SPAN); Network integration testing of Universal Mobile Telecommunications System (UMTS) with Global System for Mobile Communication (GSM) Phase 2+, Public Switched Telephone Network (PTSN) and Integrated Services Digital Network (ISDN); Part 1: Test Suite Structure and Test Purposes (TSS&TP)

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Technical Specification

**Services and Protocols for Advanced Network (SPAN);
Network integration testing of
Universal Mobile Telecommunications System (UMTS)
with Global System for Mobile Communication (GSM)
Phase 2 +, Public Switched Telephone Network (PSTN)
and Integrated Services Digital Network (ISDN);
Part 1: Test Suite Structure and Test purposes (TSS&TP)**

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

The present document was developed by EURESCOM P1106 as Deliverable 2 Volume 2 and made freely and publicly available to ETSI TC SPAN for publication.

The present document is part 1 of a multi-part deliverable covering the Network integration of UMTS with GSM Phase 2 +, PSTN and ISDN as identified below:

Part 1: **"Test Suite Structure and Test Purposes (TSS&TP)";**

Part 2: "Abstract Test Suite (ATS), Implementation Conformance Statement (ICS) and partial Implementation eXtra Information for Testing (IXIT) proformas".

Introduction

The present document contains the Test Suite Structure and Test Purposes (TSS&TP) for Network Integration Testing for the European ISDN and PLMN, covering Network Integration Testing (NIT) between ISDN-UMTS, UMTS-PSTN, UMTS-GSM, and UMTS-UMTS networks. The objective is to verify the level of international or national end-to-end support of ISDN and PLMN services. All bearer services (and associated teleservices) and supplementary services are checked for interworking capability and compatibility, in the European ISDN and PLMN.

1 Scope

The present document specifies of Test Suite Structure and Test Purposes (TSS&TP) for Network Integration Testing (NIT) to verify the overall compatibility of UMTS, GSM, ISDN and non-ISDN (PSTN) over the national or international ISUP between networks. Network Integration Testing will assure that the appropriate requested features passes between an ISDN subscriber and the mobile subscriber across the national or international ISUP (ISUP V2) interface.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

[1] ETSI EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

[2] ETSI EN 300 267-1: "Integrated Services Digital Network (ISDN); Telephony 7 kHz, videotelephony, audiographic conference and videoconference teleservices; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[3] ETSI ETS 300 080: "Integrated Services Digital Network (ISDN); ISDN lower layer protocols for telematic terminals".

[4] ETSI ETS 300 103: "Integrated Services Digital Network (ISDN); Support of CCITT Recommendation X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an ISDN Synchronous and asynchronous terminal adaptation functions ".

[5] ETSI EN 300 092-1: "Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[6] ETSI ETS 300 092-1/A2: "Integrated Services Digital Network (ISDN);Calling Line Identification Presentation (CLIP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol;Part 1: Protocol specification".

[7] ETSI EN 300 093-1: "Integrated Services Digital Network (ISDN); Calling Line Identification Restriction (CLIR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[8] ETSI EN 300 097-1: "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[9] ETSI ETS 300 097-1/A1: "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[10] ETSI EN 300 098-1: "Integrated Services Digital Network (ISDN); Connected Line Identification Restriction (COLR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[11] ETSI EN 300 138-1: "Integrated Services Digital Network (ISDN); Closed User Group (CUG) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[12] ETSI EN 300 061-1: "Integrated Services Digital Network (ISDN); Subaddressing (SUB) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[13] ETSI EN 300 055-1: "Integrated Services Digital Network (ISDN); Terminal Portability (TP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[14] ETSI EN 300 286-1: "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[15] ETSI EN 300 185-1: "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[16] ETSI EN 300 207-1: "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. One (DSS1); Part 1: Protocol specification".

[17] ETSI EN 300 130-1: "Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[18] ETSI EN 300 188-1: "Integrated Services Digital Network (ISDN); Three-Party (3PTY) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[19] ETSI EN 300 141-1: "Integrated Services Digital Network (ISDN); Call Hold (HOLD) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[20] ETSI EN 300 058-1: "Integrated Services Digital Network (ISDN); Call Waiting (CW) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[21] ETSI EN 300 356-15: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 4 for the international interface; Part 15: Diversion supplementary service [ITU-T Recommendation Q.732, clauses 2 to 5 (1999) modified]".

[22] ETSI EN 300 359-1: "Integrated Services Digital Network (ISDN); Completion of Calls to Busy Subscriber (CCBS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[23] ETSI EN 300 369-1: "Integrated Services Digital Network (ISDN); Explicit Call Transfer (ECT) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[24] ITU-T Recommendation E.164:" The international public telecommunication numbering plan".

[25] ISO/IEC 9646-1: "Information Technology-Open Systems Interconnection- Conformance testing methodology and framework, Part 1: General Concepts".

[26] ETSI TS 100 548 (GSM 03.88): "Digital cellular telecommunications system (Phase 2+) (GSM); Call Barring (CB) supplementary services - Stage 2 (GSM 03.88 Release 1998)".

[27] ITU-T Recommendation Q.699: "Interworking between the digital Subscriber Signalling System Layer 3 protocol and the Signalling System No.7 ISDN User part".

[28] ITU-T Recommendation Q.764: "Signalling System No. 7-ISDN User Part signalling procedures".

[29] ETSI TS 122 082: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Forwarding (CF) Supplementary Services; Stage 1 (3GPP TS 22.082 Release 5)".

[30] ETSI TS 122 084: "Digital cellular telecommunications system (Phase 2 +); Universal Mobile Telecommunications System (UMTS); MultiParty (MPTY) supplementary service; Stage 1 (3GPP TS 22.084 Release 5)".

[31] ETSI TS 122 085: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Closed User Group (CUG) supplementary services; Stage 1 (3GPP TS 22.085 Release 5)".

[32] ETSI TS 123 034: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); High Speed Circuit Switched Data (HSCSD); Stage 2 (3GPP TS 23.034 Release 5)".

[33] ETSI TS 123 081: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Line Identification supplementary services; Stage 2 (3GPP TS 23.081 Release 5)".

[34] ETSI TS 123 082: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Forwarding (CF) Supplementary Services; Stage 2 (3GPP TS 23.082 Release 5)".

[35] ETSI TS 123 083: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 2 (3GPP TS 23.083 Release 5)".

[36] ETSI TS 123 084: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); MultiParty (MPTY) Supplementary Service; Stage 2 (3GPP TS 23.084 Release 5)".

[37] ETSI TS 123 085: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Closed User Group (CUG) Supplementary Service; Stage 2 (3GPP TS 23.085 Release 5)".

[38] ETSI TS 123 087: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); User-to-User Signalling (UUS) supplementary service; Stage 2 (3GPP TS 23.087 Release 5)".

[39] ETSI TS 123 088: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Barring (CB) Supplementary Service; Stage 2 (3GPP TS 23.088 Release 5)".

[40] ETSI TS 124 008: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Mobile radio interface Layer 3 specification; Core network protocols; Stage 3 (3GPP TS 24.008 Release 5)".

[41] ETSI TS 124 011: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface (3GPP TS 24.011 Release 5)".

[42] ETSI TS 124 081: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Line Identification Supplementary Service; Stage 3 (3GPP TS 24.081 Release 5)".

[43] ETSI TS 124 082: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Forwarding supplementary service; Stage 3 (3GPP TS 24.082 Release 5)".

[44] ETSI TS 124 083: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 3 (3GPP TS 24.083 Release 5)".

[45] ETSI TS 124 085: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Closed User Group (CUG) Supplementary Service; Stage 3 (3GPP TS 24.085 Release 5)".

[46] ETSI TS 124 087: "Digital cellular telecommunications system (Phase 2 +); Universal Mobile Telecommunications System (UMTS); User-to-User Signalling (UUS); Stage 3 (3GPP TS 24.087 Release 5)".

[47] ETSI TS 124 093: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Call Completion to Busy Subscriber (CCBS); Stage 3 (3GPP TS 24.093 Release 5)".

[48] ETSI TS 129 007: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN) (3GPP TS 29.007 Release 5)".

[49] ETSI TS 127 001: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS) (3GPP TS 27.001 Release 5)".

[50] ETSI TS 129 002: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Mobile Application Part (MAP) specification (3GPP TS 29.002 Release 5)".

[51] ETSI EN 300 646-1: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); Digital cellular telecommunications system (Phase 2); Application of ISDN User Part (ISUP) version 2 for the ISDN-Public Land Mobile Network (PLMN) signalling interface; Part 1: Protocol specification (GSM 09.12)".

[52] ETSI TS 122 086: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Advice of Charge (AoC) supplementary services; Stage 1 (3GPP TS 22.086 Release 5)".

[53] ETSI TS 122 003: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Circuit Teleservices supported by a Public Land Mobile Network (PLMN) (3GPP TS 22.003 Release 5)".

[54] ETSI ETS 300 604: "Digital cellular telecommunications system (Phase 2) (GSM); General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN) (GSM 09.07)".

[55] ETSI EN 300 001: "Attachments to the Public Switched Telephone Network (PSTN); General technical requirements for equipment connected to an analogue subscriber interface in the PSTN".

[56] ETSI ETS 300 648: "Public Switched Telephone Network (PSTN); Calling Line Identification Presentation (CLIP) supplementary service; Service description".

[57] ETSI EN 300 659: "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services".

[58] ITU-T Recommendation Q 735: "Stage 3 description for community of interest supplementary services using Signalling System No. 7".

[59] ETSI TBR 008: "Integrated Services Digital Network (ISDN); Telephony 3,1 kHz teleservice; Attachment requirements for handset terminals".

[60] ETSI EG 201 018: "Integrated Services Digital Network (ISDN); Application of the Bearer Capability (BC), High Layer Compatibility (HLC) and Low Layer Compatibility (LLC) information elements by terminals supporting ISDN services".

[61] ETSI ETS 300 102-1: "Integrated Services Digital Network (ISDN); User-network interface layer 3; Specifications for basic call control".

[62] ETSI ETS 300 511: "European digital cellular telecommunications system (Phase 2); Man-Machine Interface (MMI) of the Mobile Station (MS) (GSM 02.30)".

[63] ETSI ETS 300 649: "Public Switched Telephone Network (PSTN); Calling Line Identification Restriction (CLIR) supplementary service; Service description".

[64] ETSI ETR 018: "Integrated Services Digital Network (ISDN); Application of the Bearer Capability (BC), High Layer Compatibility (HLC) and Low Layer Compatibility (LLC) information elements by terminals supporting ISDN services".

[65] ITU-T Recommendation E.163: "Numbering plan for the international telephone service".

[66] ETSI ETS 300 577: "Digital cellular telecommunications system (Phase 2) (GSM); Radio transmission and reception (GSM 05.05)".

[67] ETSI EN 302 646-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Digital cellular telecommunications system (Phase 2+); Application of ISDN User Part (ISUP) version 3 for the ISDN-Public Land Mobile Network (PLMN) signalling interface; Part 1: Protocol specification (GSM 09.14 Release 1998)".

[68] ETSI ETS 300 196: "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol".

[69] ITU-T Recommendation Q.734.1: "Stage 3 description for multiparty supplementary services using Signalling System No. 7: Conference calling".

[70] ETSI EN 300 065-1: "ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM); Narrow-band direct-printing telegraph equipment for receiving meteorological or navigational information (NAVTEX); Part 1: Technical characteristics and methods of measurement".

[71] ETSI EN 300 646: "Integrated Services Digital Network (ISDN); Signalling System No.7; signalling interface".

[72] ETSI EN 300 065: "ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM); Narrow-band direct-printing telegraph equipment for receiving meteorological or navigational information (NAVTEX)".

3 Definitions

3.1 Definitions related to conformance testing

For the purposes of the present document, the following terms and definitions apply:

Abstract Test Case (ATC): Refer to ISO/IEC 9646-1 [25].

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [25].

Implementation Conformance Statement (ICS) proforma: Refer to ISO/IEC 9646-1 [25].

Implementation eXtra Information for Testing (IXIT) proforma: Refer to ISO/IEC 9646-1 [25].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [25].

lower tester: Refer to ISO/IEC 9646-1 [25].

point of control and observation: Refer to ISO/IEC 9646-1 [25].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [25].

Protocol Implementation eXtra Information for Testing (PIXIT): Refer to ISO/IEC 9646-1 [25].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [25].

test purpose: Refer to ISO/IEC 9646-1 [25].

3.2 Definitions related to test purpose descriptions

For the purposes of the present document, the following terms and definitions apply:

Alternate speech and facsimile group 3 (TS 61): tteleservice which allows the connection of ITUgroup 3 fax apparatus (send and/or receive) to the mobile stations of a GSM PLMN

NOTE: Facsimile connections may be established to/from group 3 apparatus in the PSTN, ISDN or GSM PLMN.

Alternate Speech/Data: provides the capability to swap between speech and data during a call

NOTE 1: If either the speech or data portion of the call requires a full rate channel, a full rate channel shall be used for the duration of the call.

NOTE 2: The access interface at the mobile station for the data portion is assumed to be a standard data interface. Some means must be provided to select the speech/data capability.

Automatic Facs. group 3 (TS 62): teleservice which allows connection of ITUgroup 3 fax apparatus to and from the mobile stations of a GSM PLMN

NOTE: Facsimile connections may be established to and from group 3 apparatus in the PSTN, ISDN or GSM PLMN.

BC=speech: Bearer Capability information element with its information transfer capability field set to "speech" and its user information layer one protocol field set to "G.711 A-law"

BC=3,1 kHz audio: Bearer Capability information element with its information transfer capability field set to "3,1 kHz Audio" and its user information layer one protocol field set to "G.711 A-law"

BC=UDI: Bearer Capability information element with its information transfer capability set to "unrestricted digital information"

BC=UDI/TA: Bearer Capability information element with its information transfer capability set to "unrestricted digital information with tones/announcements" and its user information layer one protocol field set to "Recommendations H.221 and H.242"

BC=V110/X30: Bearer Capability information element with its information transfer capability set to "unrestricted digital information" and its user information layer 1 field set to "ITUstandardized rate adaption V.110/X.30", including sync/async and user rate values

CF active: Call Forwarding (U, B or NR) supplementary service already activated with the address of user C

CUG default request: the Calling User does not include in the outgoing SETUP message a explicit request for the CUG supplementary service

GSM-BC=3,1kHz (External to the PLMN): used to select a "3,1 kHz audio" interworking function at the MSC

NOTE 1: This service category is used when interworking with the ISDN or PSTN "3,1 kHz audio" service and includes the capability to select a modem at the interworking function.

NOTE 2: "External to the PLMN" indicates that the "3,1 kHz audio" service is only used outside of the PLMN, in the ISDN/PSTN. The connection within the PLMN, user access point to the interworking function, is an unrestricted digital connection.

GSM-BC=Speech (TS 11): service which provides the transmission of speech information and audible signalling tones of the PSTN/ISDN

NOTE: In the GSM PLMN and the fixed network processing technique appropriate for speech such as analogue transmission, echo cancellation and low bit rate voice encoding may be used.

GSM-BC=UD: Unrestricted Digital Information (UDI) which provides the transfer of unrestricted digital information

GSM-Bearer service categories: all bearer service categories provide information transfer between R/S reference points and allow the use of sub-rate information streams which are rate adapted

GSM teleservices: teleservices supported by a GSM PLMN described by a number of attributes which are intended to be largely independent

NOTE: They are grouped into five categories: - High layer attributes-Low layer attributes (describing the Bearer capabilities which support the Teleservice). - information transfer attributes, - access attributes. - General attributes

HLC = Facsimile G2/G3: High Layer Compatibility information element with its high layer characteristics identification field set to "facsimile group 2/3 (Rec. F.182)"

HLC = facsimile group 4: High Layer Compatibility information element with its high layer characteristics identification field set to "facsimile group 4 class 1"

HLC = telephony: High Layer Compatibility information element with its high layer characteristics identification field set to "telephony"

HLC = telex: High Layer Compatibility information element with its high layer characteristics identification field set to "telex"

HLC = videotelephony_ic: High Layer Compatibility information element with its high layer characteristics identification field set to "videotelephony" and its extended audiovisual characteristics field set to "capability set of initial channel of Rec. H.221"

NOTE: See ITU-T Recommendation F.721.

LLC = telematic_term: Low Layer Compatibility information element with its user information layer 2 field indicating "ISO/IEC 7776 DTE-DTE operation" and user information layer 3 field indicating "ISO/IEC 8208"

LLC = V110/X30: Low Layer Compatibility information element with its user information layer 1 field indicating "ITUstandardized rate adaption V.110/X.30" and including sync/async and user rate values

LLC = voice band data via modem: Low Layer Compatibility information element with its user information layer 1 field indicating a "modem type" coding

speech followed by data: provides a speech connection first and then at some time while the call is in progress, the user can switch to a data connection

NOTE: The user cannot switch back to speech after the data portion. If either the speech or data portion of the call requires a full rate channel, a full rate channel shall be used from the start of the call. The network may then change to a half rate channel for the data portion.

UI length = 32: length of the User Information field of the User-user information element, which is 35 octets

4 Abbreviations

For the purpose of the present document the following abbreviations apply:

ATS	Abstract Test Suite
3PTY	Three-ParTY conference
AIN	Advanced Intelligent Network
AMPS	Advanced Mobile Phone Service
ANSI	American National Standards Institute
BC	Bearer Capability information element
BNF	Backus-Naur Form
BS	Base Station
BSC	Base Station Controller
BSG	Basic Service Group
BSS	Base Station Sub-system
BSS	Base Station System
BSSMAP	BSSMAnagement Part

BTS	Base Transceiver Station
CAMEL	Customized Applications for Mobile network Enhanced Logic
CD	Call Deflection
CDMA	Code Division Multiple Access
CFB	Call Forwarding Busy
CFNR	Call Forwarding No Response
CFNRc	Call Forwarding on mobile subscriber Not Reachable
CFNRy	Call Forwarding on No ReplY
CFU	Call Forwarding Unconditional
CI	CUG Index
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
CN	Core Network
COLP	COnnected Line identification Presentation
COLR	COnnected Line identification Restriction
CONF	CONFerence (add-on)
CS1	Capability Set-1
CUG	Closed User Group
CW	Call Waiting
DECT	Digital Enhanced Cordless Telecommunications
DHCP	Dynamic Host Configuration Protocol
DTAP	Direct Transfer Application Part
ECT	Explicit Call Transfer
ESR	Eroded Seconds Ratio
FE	Functional Entity
FPH	FreePHone service
FPLMTS	Future Public Land Mobile Telecommunication Systems
FTAM	File Transfer Access & Management
GGSN	Serving GPRS Support Node
GII	Global Information Infrastructure
GK	GateKeeper
GMSC	Gateway MSC
GSM	Global System for Mobile communication
GW	GateWay
H/V-PLMN	Home/Visited PLMN
HLC	High Layer Compatibility information element
HLR	Home Location Register
HPLMN	Home Public Land Mobile Network
IA	Incoming Access
ICB	Incoming Calls Barred within a CUG
IMSI	International Mobile Subscriber Identity
IMT-2000	International Mobile Telecommunications ñ 2000
IMUI	International Mobile User Identity
IN	Intelligent Network
INAP	Intelligent Network Application Part
IP	Internet Protocol
IPCP	IP Control Protocol
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
IUT	Implementation Under Test
IWF	InterWorking Function
IWMSC	InterWorking Mobile Switching Centre
LAN	Locale Access Network
LLC	Low Layer Compatibility information element
MAP	Mobile Application Part
MCID	Malicious Call IDentification
MCU	Multipoint Control Unit
MD-BS	Mobile Data Base Station
MD-IS	Mobile Data Intermediate System
M-ES	Mobile End System
MexE	Mobile station (application) execution Environment
MGK	Mediation GateKeeper